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Congratulations, you have purchased one of the best secondary performance kits on the market today. After completing the installation, be ready for an overall performance improvement in your sled. You should notice better acceleration, improved downshifting, less belt wear and less belt failures. You will also notice that the sled will decelerate quicker, meaning that less brake application will be needed. Use caution when letting off throttle on ice or hard packed snow as the sled may require additional control. The use of track studs is highly recommended.

Caution!

Before installing any performance enhancing products, the entire machine must be in good mechanical condition with no defects for safe and reliable overall performance.

To begin the installation, remove necessary side panels and belt guard. Remove the drive belt. Loosen and remove the secondary retaining bolt and retaining cap. Remove the secondary clutch. Refer to the Arctic Cat Service Manual and remove the stock helix and spring. Do not remove the black plastic thrust washer or the white plastic sleeve as these will be reused. Install the X-1 helix, spring cap and spring.

Disassemble the secondary per the Arctic Cat Service Manual.

No spring shim washers on the end cap should be used. We do not recommend using a shift assist (thrust bearing) or hard, non-OEM rollers as our baseline setup was developed using the OEM spring/roller pin retainer washer. Using the shift assist or hard rollers may change the shift characteristics slightly.

Adjusting belt deflection

2005 -2006½ (1st version)

These sleds used a short bolt (appx. 1") to retain the secondary. If the original retaining bolt is short, the bolt and flat washer will have to be replaced with an Arctic Cat part number 1623-572 bolt. The new style bolt will have a groove cut across the threads for the gear case vent. Adjust the deflection per the 2nd version adjuster.

2006½ - 2008 (2nd version)

Remove the shims and o-ring from the original retainer button and install them onto the new retainer button. Do not use the spacer ring supplied with the kit. Adjust the belt deflection per the owner's manual.

2009+ (3rd version)

Install the spacer ring supplied onto the retainer button. Remove the shims and O-ring from the original retainer button and install them onto the new retainer button. Adjust the belt deflection per the owner's manual.

Changing the belt.

Remove the secondary clutch retaining bolt and button. Remove the O-ring, shims and spacer ring (3rd version). Reinstall the button and bolt and tighten the retaining bolt. The sheaves should be open allowing the belt to be removed and/or replaced.

Torque secondary bolt to 24 ft/lbs and install drive belt. Reinstall belt guard and panels.

Caution!

Take the sled out for a short ride to get familiar with the new performance characteristics. There should be a noticeable amount of added engine braking when letting off the throttle, therefore traction studs are required to maintain control.